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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,350	10/19/2006	David R. Mikalonis	0055938-000003	2596

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BUCHANAN, INGERSOLL & ROONEY PC  
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EXAMINER
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PILKINGTON, JAMES

ART UNIT	PAPER NUMBER
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3656

NOTIFICATION DATE	DELIVERY MODE
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12/08/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/583,350	<b>Applicant(s)</b> MIKALONIS ET AL.	
	<b>Examiner</b> JAMES PILKINGTON	<b>Art Unit</b> 3656	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11/20/09.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 10-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 16 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/19/06</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

Claims 10-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on November 20, 2009. The traversal is on the grounds that the two inventions require an overlapping search, however this is not the case. The method of producing a roller bearing has a required search and separate classification in class 29 and the bearing has a required search and separate classification in class 384. The bearing can be made by any procedure and still meet the structural limitations of the claim and therefore does not require a search in class 29 for particular method steps, such as electrolytically applying the striking-layer.

The requirement is still deemed proper and is therefore made FINAL.

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A

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COMPACT DISC.

(f) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The disclosure is objected to because of the following informalities: page 3 line 16 "1,5% by wt." should be - -1.5% by wt.- -.

Appropriate correction is required.

***Claim Objections***

Claims 1 and 7 are objected to because of the following informalities:

Claim 1 line 2, "with raceway" should be - -with a raceway- - to be grammatically correct.

Claim 1 line 2, "said raceways" should be - -said raceway- - since only one raceway is being positively recited in the claim.

Claim 7 lines 2-3, "1,5% by wt." should be - -1.5% by wt.- -. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7 and 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "about" in claims 7 and 17 is a relative term which renders the claim indefinite. The term "about" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Does the term about cover a range +/- 1% or +/-5%?

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4, 6, 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Ward, USP 6,318,898.

Ward discloses a rolling bearing comprising at least one ring (30) provided with raceway (58) and rolling elements (32) to engage said raceway, wherein said ring and raceway comprise a ball bearing steel (column 4 lines 33-36), said ring (30) and/or rolling elements having a nickel-phosphorus coating comprising at least 9% by wt phosphorous (column 4 lines 57-62), wherein between said bearing steel (30) and the coating an adhesion layer (67) is provided, wherein said layer (67) comprises a nickel-layer (column 4 line 49) and wherein said coating has a thickness between 2-30  $\mu\text{m}$

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(column 4 lines 53-56), preferably 10-20  $\mu\text{m}$  or about 15  $\mu\text{m}$  (0.0005 inches disclosed which is equal to 12.70  $\mu\text{m}$  which is about 15  $\mu\text{m}$ , as best understood).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ward '898 in view of Shinada, UPS 4,681,817.

Ward discloses all of the claimed subject matter as applied above. Ward also discloses that the coating comprises 9-20% by wt. of phosphorus (column 4 lines 57-62).

Ward does not disclose that the coating comprises at least 70% by wt. Ni.

Shinada teaches a nickel-phosphorous coating which comprises at least 70% by wt of Ni (Shinada discloses a maximum of 88% nickel in the matrix) for the purpose of providing a layer with superior wear resistance, scuff resistance and corrosion resistance (Column 1 Lines 53-60).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ward and provide for the coating to comprise at least 70% by weight of Ni, as taught by Shinada, for the purpose of providing a layer with superior wear resistance, scuff resistance and corrosion resistance.

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Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ward '898 in view of Rickerby, USP 5,952,085.

Ward discloses all of the claimed subject matter as applied above.

Ward does not disclose that the adhesion layer has a thickness smaller than 1  $\mu\text{m}$ .

Rickerby teaches making an adhesion layer (20) with a thickness smaller than 1  $\mu\text{m}$  (0.3-1  $\mu\text{m}$  disclosed) for the purpose of providing improved erosion resistance (see abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ward and make the adhesion layer with a thickness smaller than 1  $\mu\text{m}$ , as taught by Rickerby, for the purpose of providing improved erosion resistance.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ward '898 in view of Beauchet, USP 3,734,582.

Ward discloses all of the claimed subject matter as applied above.

Ward does not disclose that the ball bearing steel comprises about 1% by wt. C, 1.5% by wt. Cr and balance Fe.

Beauchet teaches a bearing steel that comprises about 1% by wt. C, 1.5% by wt. Cr and balance Fe (see claim 2 or column 1 lines 11-19).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the bearing steel of Ward with the bearing steel of

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Beauchet which comprises about 1% by wt. C, 1.5% by wt. Cr and balance Fe, since substituting one steel for another based on desired characteristics of the bearing and environment of use to yield the predictable result of providing a bearing with characteristics particular to the steel being used without altering the function of the bearing.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward '898 in view of Fridez, USP 5,322,735.

Ward discloses all of the claimed subject matter as applied above.

Ward does not disclose that an outer surface of the rolling elements comprises a ceramic material or a low friction coating.

Fridez teaches a roller comprising an outer surface (3) that comprise a ceramic material or a low friction coating (outer layer 3 is disclosed as TiC which is a ceramic coating which alters tribological properties (low friction), see column 2 lines 20-25) for the purpose of providing a rolling member with good tribological properties (column 2 lines 20-25).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ward and provide for the rolling elements to be coated in a ceramic, low friction, material, as taught by Fridez, for the purpose of providing a rolling member with good tribological properties.

### ***Conclusion***



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES PILKINGTON whose telephone number is (571)272-5052. The examiner can normally be reached on Monday - Friday 7-3.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571)272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JAMES PILKINGTON/  
Examiner, Art Unit 3656  
11/30/09

/Thomas R. Hannon/  
Primary Examiner, Art Unit 3656